No 37 - Feb. 16. 1813.
No 262 -

#15

Brief Sketches on Inflammation.

1. Inflammation -
2 Gunshot wounds
3. Biliary Calculi -
4 Calculus -
5 Fracture of Thigh bone
6 Hare Lip -
7 Injuries of Scalp -
8 Injuries of head -
9 Cataract -
10 Venereal disease -
11 Gonorrhea -

Ut desint vires; tamen est laudenda voluntas.
Ovid. ad Ruf.

N. C. Nancrede
Massachusetts.

Dilectissimo Carissimoque — Patri —

Pro tot tantisque insignis beneficiis nunquam memoria labantis.

Ut publicum grati animi, pii que testimonium. Hoc tantamen medicum suat voret et conserat

Puis Felicis.

Illustrissimo Praestantissimoque Viro
Johanno Philippo Pelletan
Professori dignissimo, Francorum Imperatoris Chirurgo consultanti, Equiti, Gallii imperii Instituti sodali, Legionis honoris, Nosocomii vulgo dicto Hotel Dieu Lutetiae Parisiorum Chirurgo primario, rei non ejusdem urbis celberrimae facultatis medicinae clinices externae professori, Academiae imperialis Josephinae Viennae Austriae socio honorario, professorum Facultatis medicinae parisiensis societatis &c. &c. vero tot praelaris dotibus ornato summis que honoribus decorato, Praeceptori meo plurimum colendo

Taqui patris onei, erga me caritatis aemulus, tuâ curâ, tuâ diligentiâ, innatâque munificientiâ, mihi in arte medendi viam aperuisti, benignus accipere hoc tantamen medicum, (quidem indigni pro sphore meo magno,) quod dico, voro, et conscero, tibi in signum

gratissimi animi Obsequentissimus tuus alumnus —

Nec non Celeberrimo doctissimo que amico

Guillelmo Dupuytren

In Paris: celeberrimâ facult: chirurg: Prof: Nosocomii vulgo dicto Hôtel Dieu Chirurgo adjuncto primo, societ: plurimum sod.

Indulgentiâ tua fretus, hoc opusculum parvum tibi dicare et vovere non dubito. Indignum est quidem attentione tua vir clarissime, verùm illud tanquam amicitiæ leve pignus accepturum te confido. Vale.

Clarissimo

Philiberto Josepho Roux

Chirur: prof: Societ: plurimum sod: Nosocom: vulgò dicto de Charité Chirurg: adj: Lecte.

Tanquam amicitiæ testimonium hæc hanc qualem cumque dissertatiunculam tibi doctissime vir dico.

C. Fusans Panerede.

Brief Sketches on Inflammation

To select for my dissertation, a subject, acknowledged difficult, which has been explored by the ablest physiologists of the age; to be presented to the Philadelphia School, may draw on me severe censure, — when I may not indulge the hope, that my elaborate tho feeble sketches, which, at other times, in other places, and before other men, might have been received as plausible, cogent or even luminous, may not here, be deemed sufficiently coherent, as to acquit me of the charge of presumption, — when the language, in which I have to offer my reflections, being, by a ten years residence in a foreign country, (at an age which is not that of purists) almost obliterated, and when the least imperfect of these observations have been matured in the short time I had the honor of being committed into your school, by your Learning, your Experience, your lucid demonstration, and above all, by that uniform kindness, so well calculated to excite inquiry and draw forth latent instruction

— Yet, when I looked back and considered my very scanty stock of Medical instruction, the situation in which I was, for some years, which commanded an equal share of labour and attention on all parts, a situation better calculated to receive the elements of science than to learn how to dissert on it, I found that Inflammation, in its various stages had perhaps engaged as much of my attention as any other part of my Medical studies. — But if I used indulgence, for the choice of my subject, what may I not need for the manner in which I may be found to have treated it! . . — Here indeed, I am tempted to acknowledge the charge of presumption and throw myself on the mercy of my judges! — Yet do I not entirely despair — I had but little space of time and of paper. Such a subject could only admit of results — If I should be found equally feeble in these! I will say; that labour has encroached on the time allotted to reflection —

I candidly confess, I feel unequal to the task of even describing the mass of crude materials with which my mind has for some time been filled, and which was in some degree familiar to me: — But after all the apologies I can make, my judges know that mine is not the age of meditation; — and I confidently rely on their indulgence. Ut desint vires, tamen est laudenda voluntas.

Inflammation

Inflammation may be defined, an exhaltation, in a greater or less degree, variously maintained, of the vis vitalis, in any part of the animal economy, accompanied by more or less irregularity, in the circulation of the capillary vessels, which are invaricably the seat of inflammation. This appears evident from the vitality with which these vessels are endued, from the particular phenomena of circulation, and from the symptoms, accompanying inflammatory diseases. Hence we observe, that the greater the developpement of capillary vessels, in a part, the more liable it is to inflammation; the blood arriving into it in large quantity.

The two extreme degrees of this disposition are illustrated, the one, by the intensity and frequency of the disease, the other, by its unfrequency and

and the slowness of its progress. As pain or redness does not always appear, as I hope to be able to prove by and by, all local excitement of the organic movement, to a degree sufficient to produce a disorder or derange the harmony of the functions of human economy; or to disorganise the tissue which is its seat, may be considered, as an inflammation. Hence we may conclude, with Jaber, that inflammation is not an unnatural phenomenon: non contra, sed prater naturam.

In Boerhaave's time, the intimate composition of the blood was yet unknown. It was thought to be formed of various globules, of various shapes, sizes and colour. Certain vessels admitted, some the red some the yellow, other the white &c. In order that circulation should be carried on, in its natural way, it was necessary, that a relation should exist between the vessels and the globula, which were to be admitted. Any cause stopping their direction, necessarily forced them into vessels of a different order, and produced what was called obstruction, which caused inflammation. Hence it

was thought, that no inflammation could take place without obstruction, to which they had also given the appellation of Error loci, an expression since became famous, in the medical world.

By the aid of this Theory, the followers of this celebrated professor had explained all the phenomena of disease. Fever was produced by a slower motion of the blood, caused by a stagnation, which gradually ran through the vessels till it reached the heart, which afterwards, reacting on the whole mass of the blood, produced the excitement, constituting fever. Their idea was that, after finishing their distribution, the arteries were divided into smaller or even capellary vessels, which admitted the globuli in the above mentioned manner.

This theory it must be confessed, presents a fascinating aspect: but when attentively viewed, and afterwards compared with the

Theory

theories of the great men, who came after, we are irresistibly convinced of its futility.

Sauvage was the first who discovered its want of solidity. Bordeu came after him, and several other distinguished members of the once famed University of Montpellier, greatly contributed to check its progress, by demonstrating its fallacy. But their imbibing so great a share of the Stahlian principles, remained a cause of great regret, among learned cotemporaries.

The arguments produced against the doctrine of the Leyden Professor were numerous; but, in the present state of physiological progress, it would be equally useless and impertinent in me to enumerate them; suffice it to observe; that an inadequate idea of the importance of the vis vitalis was the greatest obstacle to the perfection of Boerhaave's system.

Not many years since, an other opinion was produced, by a great and ingenious Physiologist, too little known, in the English schools Vicq-D'azyr

pretended, that, by titillation, and irritation, the nerves acted too great a part, not to be principally concerned in inflammation. Perhaps the opinion of this great man was due principally to the time in which he flourished, where every phenomenon, in animal and organic life, was to be accounted for, through the medium of the nerves.

Vieq-D'azyr, however, whether from his great talents, his great reputation or his great candor, obtained a number of followers and disciples. — But his opinion is now exploded; some parts of the human body in which nerves were never discovered, being susceptible of inflammation, such as bones & cartilages; and some parts which are very sensible, when inflamed, being very little so, when in a healthy state. However this last opinion has also been exagerated. Thus excruciating pains, and even diseases have been attributed to the puncture of a

of a membranous or a tendinous part: the swelling of the arm was thought to be caused by the puncture of the fascia, made by the lancet, in bleeding; whilst it is evidently known to be produced by the puncture of some of the fibrilla of the external cutaneous nerves. Similar affections, caused by the puncture of a nerve, cease upon its complete section. The Tetanos was thought to be produced by the puncture of a tendon; yet this is not confirmed by Portal's experiment. Wounds made in a variety of ways, on the tendons of living animals, did not seem to cause the least pains, though, when the tendons was lacerated, the animal manifested some sensibility. Curiosity prompting me to repeat the experiments, I always found the same result.

Another opinion which, for some time, prevailed in our Schools, admitted that the blood contained a predisposing cause to inflammation, i e, that it was more tenacious, consistent or viscous. It

is

is a well known fact, that the blood, drawn from the vein of a man, labouring under an inflammatory disease, has a very thick buffy coat. But De Haen doubted this, and ascribed it to other causes. Hewson thought the thickness of the blood, out of the veins, indicates the greater fluidity in that, left in the vein. I trust a little reflection will be sufficient to do away the opinion, that the blood contains a predisposition to inflammation.

Some authors have pretended that, coagulating lymph acted a part in inflammation; and this opinion was principally professed, by the English physiologists, at the head of which we find all John Hunter. Thus far from the opinions which have long prevailed in our schools.

Almost every part of the human body may be the seat of inflammation, in a greater or less degree but those which have received, from nature, the greatest sensibility are most liable to it. The skin, the cellular substance, the serous and mucous membranes are in this case. The skin, the cellular substance

the whole surface of the mucous membranes are also the seat of a secretion performed by the Crypta, a fact which disposes them to inflammation. The skin is also the seat of an exhalation and of absorption. I add that, when a part has once been the seat of inflammation it is, by this very fact, disposed to it a second time. This is rendered most obvious in the serous membranes.

As inflammation goes through its different stages, with more or less rapidity, according to the degree of activity of the vis vitalis of the part, where it is situated, it seems improper to divide it, into acute and chronic, for it has a limitted time in each organ. In those moves with great energy, from the vis vitalis, it will go through its different stages with rapidity: on the contrary in those, which possess this principle in a small degree, it will be slow in its progress.

Causes. It is more important to know the general than the particular causes of inflammation.

They may be divided into proximate and predisposing, and are very numerous.

The most powerful is the solution of continuity. Dense and hard parts, which have resisted all other

causes, under a great variety of forms, and attacks very readily yield to the solution of continuity. Indeed, without it, nature or art would be deprived of the powerful medium, by which wounds are cured. The transition, from a hot to a cold temperature, by stopping the secretion of the skin and membranes; the introduction of cold fluids, into the stomach; irritation of all kinds; Oxigen applied externally or internally. (*)

Predisposing Causes. — Several causes also predispose to inflammation, such as the period of menstruation, (and of its first eruption) of gestation and of the cessation of this monthly evacuation, the hemmorrhoidal flux and exercise. Those who live on animal food are more liable to inflammation than those who live on vegetables; a full habit. whilst a spare diet, or even abstinence are often found to defy its ravages. — It is observed of the Indians, that a few days, before a battle

(*) Baron Larrey relates that the French army, marching on a high mountain, the soldiers drank copiously of snow-water; and that so violent an inflammation, accompanied by gangrene and sloughing in the fauces took place in a short time after, that it was with the greatest difficulty, they could save their lives.

is to be given, these children of nature and of experience abstain from all food, a precaution at once worthy of the wisest and most courageous people, and which, while it shows their coolness and intrepidity, especially when contrasted with the practice of their present allies, shews their courage to be bravery by excellence, if I may be allowed the expression. It is added that their wounds are much more easily healed than those of civilized soldiers. We seldom perform a surgical operation, without having by a few days preparation reduced the plethora of the patient, by an abstinent and low diet.

Inflammation has other ~~[illegible]~~ predisposing causes; a sanguine constitution, youth, plethora, parturition, hot and dry, or cold and dry weather, the beginning of Spring, dwelling on high situations, exposed to the North, the use of too hot baths, the abuse of wine, and spirituous liquors, suppression of usual hemmorrhages, strong passions indulged to excess, fits of anger, sudden transitions from active to sedentary & inactive life, and the use of high seasoned and succulent food. Some authors have thought fit to add an

inflammatory

inflammatory temperament, as Professor Roux of Paris admits of an Erespelatous temperament: all these may be considered as exposed to violent inflammation; and we may add that, generally speaking, it may proceed from the most adventitious causes.

Division of inflammation:— The late progress made in the science of anatomy have greatly contributed to a knowledge of the various stages of inflammation.

It has been divided into Erespelatous and Phlegmonous, though this division may not be founded in truth. It has also been distributed into acute and chronic. To prove that the type of inflammation is peculiar to the organ in which it is seated, is to prove this distribution to be erroneous.

Some species of inflammation have a great tendency to vary their seat, from one place to another. Thus we find the inflammation of the skin which commonly occupies a large extent, and successively the different parts of the surface of the whole body; to this sort of inflammation, authors have given the

name

name of Erespelas. The skin is not swelled, neither has it any tendency to suppurate. When the cellular membrane is affected, with inflammation, it's limitted and has no tendency to propagate itself, but its progress towards a resolution are readily discernible.

Inflammation may be considered, according to the causes that produce it, as being of three different kinds, viz

1.° Idiopathic or essential, as when inflammation is limitted, to the part, where it has its seat, and where the cause is acting.

2.° Sympathetic, or by consent of parts; as when it arises in a part, so distant from any diseased part, that its cause can only be explained by sympathy. Thus Erespelas depends upon a foul state of the stomach, and is most commonly removed by vomitting and purging, without any topical application, which are most commonly use less and often dangerous. The inflammation of the sclerotica sometimes depends upon blenorrhagia, & is thus evidently caused by the sympathy of the mucous membrane, lining the urethra with the sclerotica. Blindness has been caused, by the introduction of poiso

nous

poisonous substances into the stomach.

By Sympathy, I mean the extraordinary or unnatural developpement of the vis vitalis in a part, which is acted upon, by another, to which a direct stimulus has been applied.

3c. Symptomatic inflammation, which happens, when an organ is diseased.

Phenomena of inflammation: — The Phenomena of inflammation are of two kinds, local and general.

The general depend upon the influence which the diseased part has on the economy.

The local are divided into proper and essential to the part affected; —

— and of continuity and contiguity.

They appear in the vicinity of parts, affected with morbid alterations. —

Common phenomena need no explanation.

Symptoms: — Authors have described the phenomena of heat, redness, pain and tumefaction as symptoms of inflammation. To these, they have to add the disorder produced in the part or organ affected. The whole system is often affected in a variety

of ways. I will attempt an explanation of those phenomena.

Redness in the part is occasioned by a greater quantity of blood in its ordinary vessels, or by the admission of blood into those vessels which, in their natural state, did not admit any. "The colour of an inflamed part," says John Hunter "is visibly changed, from the natural, whatever it was to red. This color is of various hues, according to the degree of the inflammation and constitution of the patient. Sometimes it is of a pale red, at others darker, and of a purple, and sometimes bluish colour. The nearer the seat of the disease is to the center of circulation, the redder than, when situated far from it. This red colour is gradually lost in the surrounding parts; but sometimes there will be a determined edge." Several cutaneous inflammations may serve to illustrate this observation

Tumefaction is caused by the accumulation of blood in the part, (but without obstruction) producing a fullness in the blood-vessels. When the cellular membrane is inflamed we observe a tumefaction, with the appea

rance

appearance of an erection of parts. It is most always proportioned to the laxity of the part affected. Thus the cellular membrane may be said to be the part capable of the greatest tumefaction by inflammation; and this same application may be made to the accumulation of other fluids, in any part of the body. The serum has a great tendency to accumulate in those parts of the cellular membrane, which are devoid of fat, such are the parts which cover the eye-lids, and that covering the scrotum.

Heat is accounted one; but, as John Hunter judiciously remarks, it is not proportioned to the sense which the patient has of it. Hence we find that although the heat he feels is intense, yet if any one applies his hand or a thermometre, it is found to be much less so. — The activity of the circulation, in the capillary vessels, always produces heat.

Pain is more liable to vary in its nature than any of the above mentioned phenomena, it being most always in proportion to the importance of the part affected. Modern physiologists have given a specific definition of pain: the pain attending Erisipelas

is burning, or ardent; that caused by Phlegmon pulsative; the pain attending an inflamed serous membrane pungent. But whatever be the nature of pain its violence is in proportion to the tightness of the part affected, in as much as it prevents developpement. The panaries, for instance, is attended by an excruciating pain: the close structure of the part, by inducing a compression of the nerves, causes it; and agreeably to this, deep incisions and emollient applications, by relaxing, favour the expansion of the parts, alleviate the pain, and check the further progress of the disease.

Pain cannot last long in the human economy, without producing a disorder of its functions, and sometimes death. It is in general proportioned to the importance of the part seized with it, as the disorder of the economy is in proportion to the distress of the part affected:—

All wise nature has an end in view, when she excites pain; for we find, that where it is absent, the disease does not commonly terminate so favorably:— Thus parturition, when unattended with pain, is often dangerous. A

mode

severe

mode of compression of the nerves of the thigh, during the performing of a grave surgical operation, has often been practiced, by which the pain was effectually suppressed; but the disorder of the economy which ensued, when the compression was removed, was such, as often to produce death.

That a considerable disorder of the functions in the part takes place, cannot be doubted, when we observe that the exhalation of the serous membranes is changed; that a fluid of a different kind is formed; that, when the skin is the seat of inflammation, it is no longer capable of transpiration, and that the secretion of the mucous membranes is also altered. It is to be regretted, that, in such cases more attention is paid to the secretion than to the affected of the diseased part.

Schneiderian

Tumefaction has also its proper phenomena: — Thus in the swelling of the Schneiderian membrane, or Coryza, constriction is produced; the swelling of the tonsils cause a difficulty of swallowing, that of the prostate glands of voiding urine, and that of the mucous membrane, of the urethra, strictures. The whole danger of a disease often

depends

depends on the swelling

A Knowledge of the Phenomena of the continuity of parts is very important. It is simply the identic continuity of parts of the same structure. It is by this phenomenon of continuity that we explain the various states of the tongue, in the different diseases. Irritation, produced on one portion of the intestinal canal, extends its effects on a distant portion. But continuity may take place through the medium of the cellular membrane, as in the membranes of the Stomach, where this continuity is the cause of various phenomena in inflammation. It does not seem, from what I have been able to find on authors, that the Ancients paid any attention to continuity.

An inflamed part often acquires an influence, on some of the surrounding ones, to which it communicates its own irritation, whether they be united by a perfect continuity, which would admit an identity of structure, or only by means of the cellular substance, nerves and vessels: This sort of inflammation is what is properly termed inflammation by continuity, of so common an occurrence in the human economy. Hence Erisipelas or swelling of the skin.

This disease which hasits principal seat in the cellular

membrane situated under this simple tumefaction may be changed into a real inflammation, and is termed phlegmonous Erisipelas. Of this division, it may generally be said, that, when it succedes to inflammation, the disease occupies a much greater extent of parts, has a greater tendency to terminating by suppuration, and its termination is commonly more dangerous.

The cellular membrane is easily and most commonly tumefied by continuity.

Pain may also be felt by continuity; as we observe in the inflammation of the conjunctiva, where the least ray of light is transmitted by continuity to the retina; A disorder of the ordinary functions may also be produced by continuity: in no part is this rendered so obvious as in the inflammation of the Serous membrane, in the discharge of the exhalations of those membranes. It is observed in the Pleura, the Pericardium, the tunica Arachnoidea, and generally, in all the serous membranes, during inflammation.

Inflammation by Contiguity. — The alteration which can arise in one part, caused by the irritation of another

contiguous

contiguous to it, with which it is in some ways connected or joined has received the distinction of inflammation by contiguity. —

The cellular substance which is found between one organ and another, would seem, as Bichat observes, to be an obstacle to the propagation of a disease, from one part to another. This frequently happens; but on the other hand, we as frequently observe the contrary. The difference of vitality of two parts, seems a sufficient cause to prevent the propagation of disease by contiguity. The cellular substance and the fat with which it is filled, covering most parts of the human body, separates them from the surrounding ones, in such a manner, as often to stop the propagation of disease by contiguity. Thus we often find a sound pleura, covering an ulcerated or tuberculous lung; in consumptive patients, an inflamed peritoneum covering a healthy stomach, liver or Spleen; the subcutaneous parts perfect strangers to the eruptive diseases, with which the skin is covered; tumours existing in the substance of organs, unaffected by them, the tunica arachnoidea

in a

in a state of suppuration, covering the brains in no ways affected by it. All this is evidently produced, by the difference of vitality of those parts, for when a part is continued into another, it communicates its diseases to it, with more ease, than when separated from it, by the cellular membrane: thus the diseases of the periosteum are communicated to the bones, and those of the bones, to the periosteum, there being a direct communication, between these parts, and little or no intermediary cellular substance. However, too great ~~an opinion~~ a confidence in this opinion, may subject us to the admission of too many exceptions: it so often happens, that conclusions, from the anatomy of a part, are contradicted by medical observations. This is actually the case, for cellular substance, far from being in all cases an obstacle to the communication of a disease, from one part to another often helps its propagation, or physiologically speaking, the vis vitalis of one part, being

being altered, also alters that of another by contiguity, through the medium of the cellular substance. This should not be mistaken for sympathy; one part being diseased, communicates its affection to another, although the intermediary one be in a healthy state, yet no sympathy.

The Phenomena of contiguity, shew that it is not always necessary for both parts to be primitively diseased, in order to contract adhesion. Thus in the division of the intestine, in the operation for the strangulated hernia, and in wounds of those parts, the inflamed peritoneum covering the intestine, soon communicates its inflammation to the round peritoneum, lining the abdomen, and it thereby acquires all that is necessary, to contract an adhesion, which soon takes place. all this may be applied to the pleura &c. ——

Many conjectures must have arisen on the phenomena of continuity & contiguity; the phlegmasia of the

of the membranes being a recent discovery. The inflammation of the peritoneum, (first observed by Johnston, in 1779. and afterwards, by Walter a Prussian Anatomist, and since brought to view by the ingenious and indefatigable Bichat, and several of his disciples) had only served to confirm the error, for the pains being only felt in one spot of the abdomen, they could not conceive, that the same disease pervaded the whole, nor could they account for the various symptoms of the same disease, nor the of pleuresy. All the diseases of the serous membranes were attributed to the lungs. As much may be said of the tunica Arachnoides, the diseases of which were mistaken for those of the brain and confounded with them.

In the inflammation of the testes, the tunica albuginea is frequently the only part first diseased, and the testes only secundarily, and by continuity. The peritoneum cannot be inflam-

without

without producing a disorder, in all the viscera covered by it, they corresponding in a way which is peculiar to them, with this inflammation. — The phenomena of continuity and contiguity, are in few diseases so obvious as in this. It is observed, that the patient is subject to hiccups, produced by the irritation of the diaphragm, by continuity, to vomiting, by the irritation of the stomach, communicated by the peritoneum by continuity — The intestinal tube is filled with gas; the patient complains of a difficulty of voiding the contents of the urinary bladder, from the irritation, by continuity, imparted by the peritoneum, and the irritation is sometimes so great, that a suppression both of the urine and faces takes place — So great is the irritation, that the liver does not always perform its functions — the intestinal tube being motionless, can only discharge its contents, by

convulsion

convulsions. Various other phenomena of sympathetic nature are observable. In the mucous membrane which lines the intestines, for instance, one grain of tartar emetic, introduced into the stomach of a healthy young man, which excited an inflammation, communicated, by continuity, by the Oesophagus and mouth, caused hydrophobia, and ended in death. — The injection of irritating substances into the rectum often produces violent effects. A tobacco-glister being thrown up the rectum, in the case of a strangulated hernia, produces death in a few hours. These two patients were under my care at the Hotel-Dieu at Paris.

Sympathetic phenomena. — These called sympathetic phenomena, from the impossibility of accounting, for them, by any other cause than sympathy, constitute, what is called, the symptomatic fever of inflammation.

Physicians have not always been of the same opinion in respect to the sympathy between a local inflammation and the general phenomena of inflammation. Selle, a German writer of reputation, doubted its existence; but most modern physiologists have since admitted it.

Fever does not solely consist in the disorder of the circulation; for it is evident, it would be incorrect to ascribe it wholly to an increased motion of the heart. It is a general state of the economy. Transpiration is sometimes diminished and then increased — the animal functions also undergo a change. It has the acute type, and is in proportion to the importance of the diseased part.

The extent and degree of the inflammation regulates that of the fever which is also increased, by pain and often wholly produced by it. The panaris, for example, is very remarkable for the symptomatic fever it occasions. Here the fever does not correspond to the importance of the diseased part, for parts of much greater importance, do not cause so great a disorder

or so violent a symptomatic fever, which so often terminates in death.

We find that, once produced, inflammation goes through its different stages or periods, with the same regularity in each organ; and that it is subordinate, to the age, sex, temperament, idiosyncrasia &c. and even to the predominating cause; for the inflammation of the mucous membrane, which lines the canal of the urethra, may be produced by other causes than the Syphilis.

Of the phlegmasia, some have a tendency to change their seat, from one part to another, and not to go through all the periods of inflammation, in the same part: this is the case with Erisipelas and rheumatism, where we observe the inflammation of the muscles successively invading several parts with astonishing rapidity. The inflammation of the mucous membrane presents the same phenomenon' —

When a part has been affected with an inflammation, it either resumes its natural state, or becomes the seat of another disease, evidently connected with the preceding, or else inflammation continues and becomes chronic; and this is a common occurrence.

When, at the close of a disease, the part resumes its natural state, which is done by slow degrees, this termination is called resolution. — When, instead of going through its different periods, it suddenly ceases, it is Delitescence. — When, in consequence of inflammation, another disease appears in another part, Metastasis. Authors of the highest antiquity were acquainted with this mode of termination, in inflammation. Metastasis has received different names, according to the importance of the part affected.

Resolution is most always accompanied by a critical Crisis, which is more common with the inflammation of internal parts, such as the viscera; yet great care should be taken, not to mistake, for a crisis, the

return

return of the part to its natural functions, which will often cause a disorder manifest in the economy. Certain functions cannot return to their natural operations, without exciting unnatural movements.

Inflammation may terminate by another disease, viz. Suppuration, Induration or Gangrene.

The most common is by suppuration, the end of which is the production of a fluid, which in its natural state, and, unaltered by the contact of air, or any extraneous body, is white, devoid of Smell, of the fluidity and consistency of honey, this fluid is called pus. It is often difficult to distinguish it from the mucus secreted by the membranes of the bronchia in diseases of the Lungs.

The second termination is by induration. It takes place, when a part, which has recently been the seat of inflammation is enlarged, swelled and hurdes. It should not be confounded with a Schirrus, though the first degree of that induration. This termination does not happen so often in some parts, as it does in others. The Glandular are most liable to it.

Pudd

Perhaps it might be said that it most commonly takes place in the secretory organs. It is no unfrequent occurrence, to see a person, who, with all the appearance of regular health, has an induration of one or more lymphatic ganglions of the groin. They are often found on dissection, to be in a cartillaginous state:

Glands are often found to be in a state of ossification, when no disorder has been discovered during life. I once found, while dissecting in one of the hospitals in Paris, several stony concretions in a glans pinealis of a man who, during life, had manifested no unnatural affections. The lymphatic glands and ganglions, when inflamed, almost always terminate in induration, but a part that has been indurated, often returns to its natural state, after a lapse of time.

Gangrene is the last termination: We are to consider it as a disease altogether distinct. It is thought to proceed from too great an intensity of inflammation. In that species which arises from the malignancy of the inflam

mation

inflammation (for some are essentially gangrenous) gangrene is most always preceded by it. — Some species of inflammation, can only terminate by gangrene. When this last disease is caused by the violence of inflammation it's commonly confined, but it does not always happen so: it sometimes extends its invasion on an extended surface. Its progress seem to be favored and even propagated, by the swelling of the cellular substance.

Acute inflammation is sometimes transformed into a chronic disease, the duration of which is indefinite. Chronic inflammation has symptoms wholly different from those of the acute. The only remaining symptom of the acute is the redness of the part, and we can neither discover in the chronic, pain, tension or swelling. It has its seat in some parts in preference to others. — One of its characteristics is its tendency to ulceration: this, we frequently remark, in the skin. It sometimes produces a catarrh, at others a sphacelus. There is no ulceration in the gonnorrhea, but we often find it in blenorrhagia, when it has become chronic. The serous and mucous membranes are the parts most liable

liable to it.

Treatment of inflammation

It is much easier to prevent inflammation, than to stop its progress when it has once appeared. It is then necessary to assist its progress, and hasten its termination.

In some species, internal means are the only ones to be employed. Erisipelas, depending on a foul state of the first passages, requires vomiting and purging without any topical application, which is useless & often dangerous, though some physicians (*) have recommended its use. Opthalmia and Angina, depending upon the foul state of the first passages, require the same treatment. But in erisipelatous phlegmon

(*) Professor A Leroy applies dry farinaceous substances: how far he has been successful I cannot say. Professor Pelletan always bathes the part, with some warm decoction such as that of elder flower. &c. I cannot affirm that this practice was approved. quod uno valet esse, ne tentes pluribus.—

where a tendency to suppuration is to be prev-
-ted, emollient applications or of fat or oily
substances, will most commonly produce this e-
-fect. —

The gout, the nature and proximate cause
of which are still undiscovered, affects the art-
-culations spontaneously, and, being capable
retrocession, may cause an inflammation of
the viscera of the thorax and abdomen, the
progress of which are rapid & promptly
fatal. It should also be treated by intern-
remedies. Professor Barton recommends
arsenic and hes hed Juccepes. External a-
-plications, such as that of mustard, irritat-
poultices and blisters on the limb and dis-
parts, have frequently been attended with suc-
When the inflammation is violent, bl-
either general or local, will often be fou-
useful. The good effects of local bl-

which my limitted experience has afforded me the means of observing have often suggested the query, why it was not more generally practised, for in many cases, nature herself seems to indicate it. It is observed that, after the operation of Lithotomy, when the patient has a hemorrhage, he most commonly recovers, if it has not been so copious, as to produce mortal debility, or some other bad effect. The application of leeches which is so safe, seems to claim a preference in most cases. — Cupping and Scarifications have also been used with advantage, to allay the violence of inflammation.

Several authors have recommended the opening of the vein, under the tongue, to check the progress of inflammation. This mode of local depletion, now fallen into disuse, has often produced the best effects: In two cases where suffocation was threatened, I saw it opened with the best & promptest results —

Blisters have also been recommended. Dr. Petit of Lyons, informs us, that he has used them in these cases with Success: he adds that he was in the habit of applying them on the apex of the Phleymon & Erisipelas. (It could only be sub-cutaneous phleymon). We daily see the good effects of blisters, in the inflammation of the Pleura, the Lungs or the Conjunctiva. Chronic inflammations have not unfrequently been cured by this application, from the principle of Hippocrates, that Duobus doloribus simul obortis, vehementior obscurat alterum.

It has been observed that the cure of fractures, with contusion wounds, was commonly unattended with difficulties: this may be accounted for, by the number of inflammations which necessarily take place in such a case, and which act upon the above principle of the crack of Cos.

Narcotic applications, both in poultices of such as the laudanum of Sydenham, and in fomentations as the decoction of the poppy are used to allay the pain, in violent inflammations and cancerous swellings.

Tonics and astringents have been found useful in some cases

cases, particularly where the vessels distended with blood had not tone sufficient to react and empty them-selves. — But the judgment of the experienced Practitioner is the best rule, in the treatment of inflammation.

Medicina brevem occasionem habet; et qui hoc novit, ille data ac certa habet, et scit quæ bona sint, et quæ non bona. —

Hippocrat. de locis in homine. Cap. XV. —